

Fairfax County Information Technology

Geospatial Services Division

GIS Directions FY21

January 12, 2021

GIS Directions – Locational Intelligence

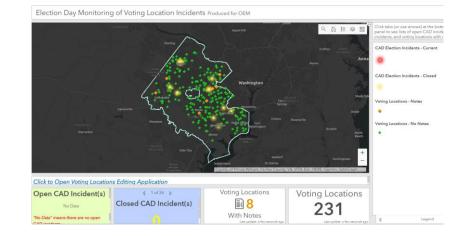
- GIS enters new phase in FY 21
- Recent Activity
 - COVID -19 and public safety support
 - Next Generation 911
- Redistricting and GIS tools
- GIS Modernization True enterprise class GIS
- GIS Centric Business Systems
- Data Acquisitions

Public Safety GIS Support Areas

- NG9-1-1
 - Live on June 3
 - Geospatial Call Routing
 - First in Virginia and top 5% in United States out of 6,000+ PSAPs
- Election Day
 - Voting Location Monitoring
- COVID-19 Response
 - COVID-19 Geospatial Resources HUB
 - Resources (maps, interactive applications, map layers, and other data) relevant to the County response

FAIRFAXCOUNTY

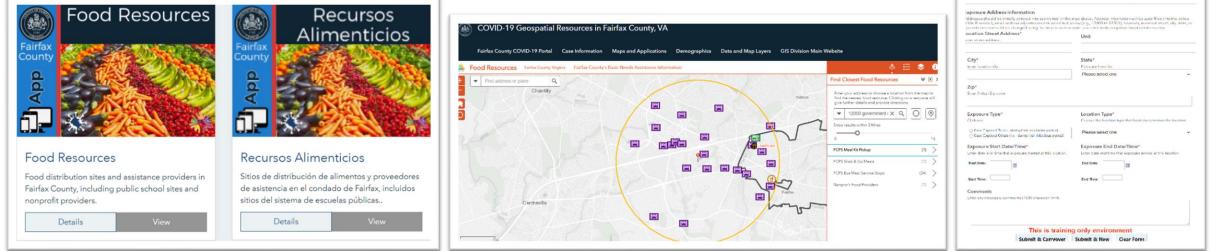




Public Safety GIS Support Areas

COVID-19 Response

- Health Department Support
- FCPS / NCS Support
 - Food Resources Application / Dashboard
 - Assist the community in locating closed food resource options
 - NCR effort in progress

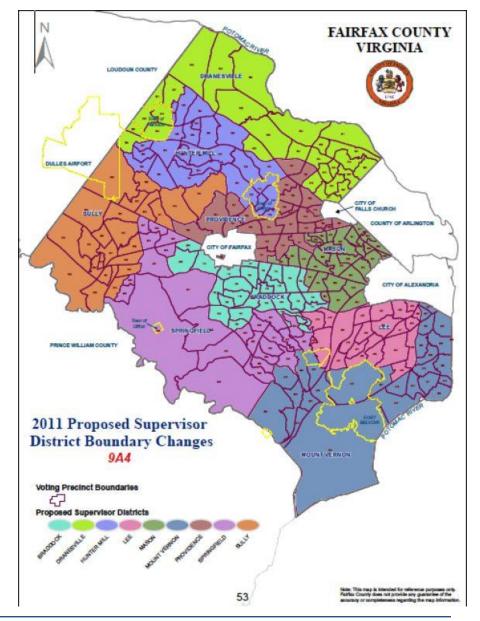


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Reapportionment Support with GIS

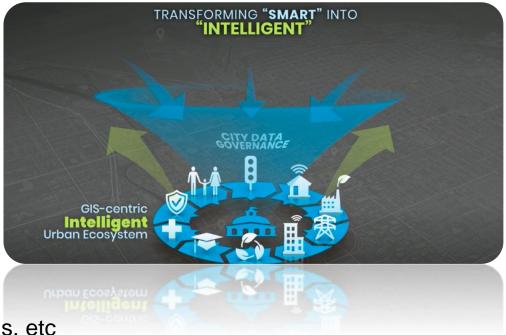
- Successful experience using remote GIS in 2011
- Evaluating software packages for 2021
- Example requirements
 - Facilitate a COVID -19 environment
 - Allow Reapportionment Committee members to develop plans electronically and remotely
 - Share proposed plans with Committee and public
 - Provide demographics and population analysis at district and precinct level
 - Utilize county preferred geographies (precincts)



GIS Modernization

Why Modernize?

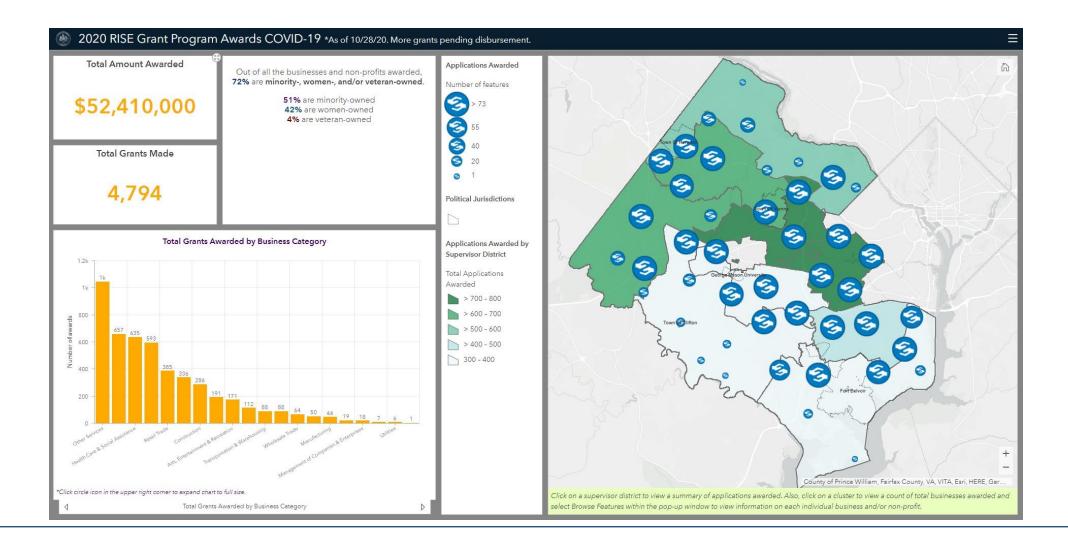
- Locational intelligence focus of County
 - Where are services needed? Who is where? Equity
- Licensing bottlenecks
 - Could not take full advantage of what GIS could do
 - Could not deploy licensing to stabilize system
- GIS Systems on par with IT ecosystem
 - No weak link for GIS capabilities
 - Disaster Recovery (DR)
 - High Availability (HA)
- New mobile capabilities
 - Inspections, snowplow crews, pest control, park operations, etc
 - Full end to end solutions native to GIS
- Consolidate county licensing for higher value
- New technology available



GIS Modernization

- Why Modernize?
 - Better Constituent/Resident engagement Communicate and collaborate with residents and communities of interest
 - Decision Support Gain situational awareness, enable information driven decision making
 - Design, planning, and review Evaluate alternative solutions to create optimal plans or designs
 - Sharing and Collaboration Empower everyone to easily discover, use, make and share geographic information

GIS- Centric Program Management - RISE



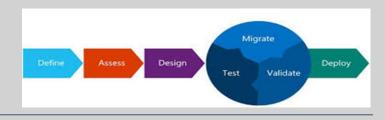
GIS Modernization – Architecture Refresh

- Native Monitoring for ESRI products
- Service tuning capability
- Vertical and horizontal scaling
- Pairing
- Largely complete Summer 22

GIS Modernization – SQL Migration

Move GIS Database to SQL

- In Process now
 - Creating and testing scripts to migrate various schema
- Next Steps
- Execute scripts to migrate data
- Data Quality Assurance
- Application code migration to SQL Server
- Recreate map services
- Application testing
- Performance testing
- Plan to have completed by summer 2021

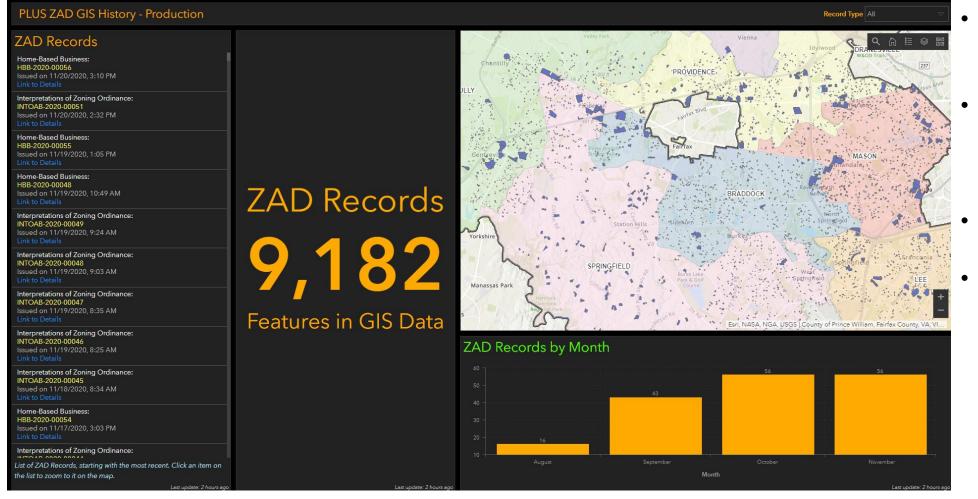


GIS Centric Business Systems

- PLUS Multi agency
- CMMS DPWES
- CPMIS DPWES
- IPLS DMB
- MAR Multi agency
- EDGR OEM



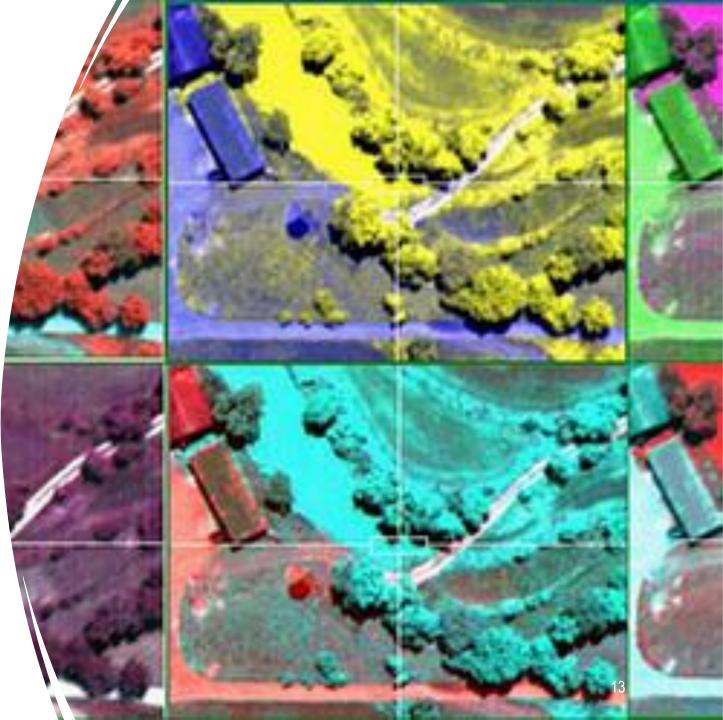
GIS Centric Business Systems - PLUS



- GIS is source of a variety of data
- All records are automatically geoenabled
- Map/analysis ready
- All business areas have dashboard enabled

Data Acquisitions and Maintenance

- Remotely Sensed Data
 - Satellite Tasking 2021
 - Worldview III, obtain multispectral imagery for land cover determinations
- Aerial Photography Program
 - Flight in March-April 2021
- LiDAR acquisition early 2020
- Planimetric data update 4-year process
- Buildings, roads, driveways, lakes, ponds, rivers, sidewalks, tennis courts, basketball courts, etc.
- 75% complete, finish in 2021



Resources for All Staff and the Public

Fully Interactive Resources

- Fairfax County LiDAR Resources Site
- Geospatial Property Data Guide Storymap
- GIS Parcel Creation Process Storymap
- Interactive Mapping Applications Gallery

Geospatial Services Division

Questions?